Piano Technicians Journal

December 1985

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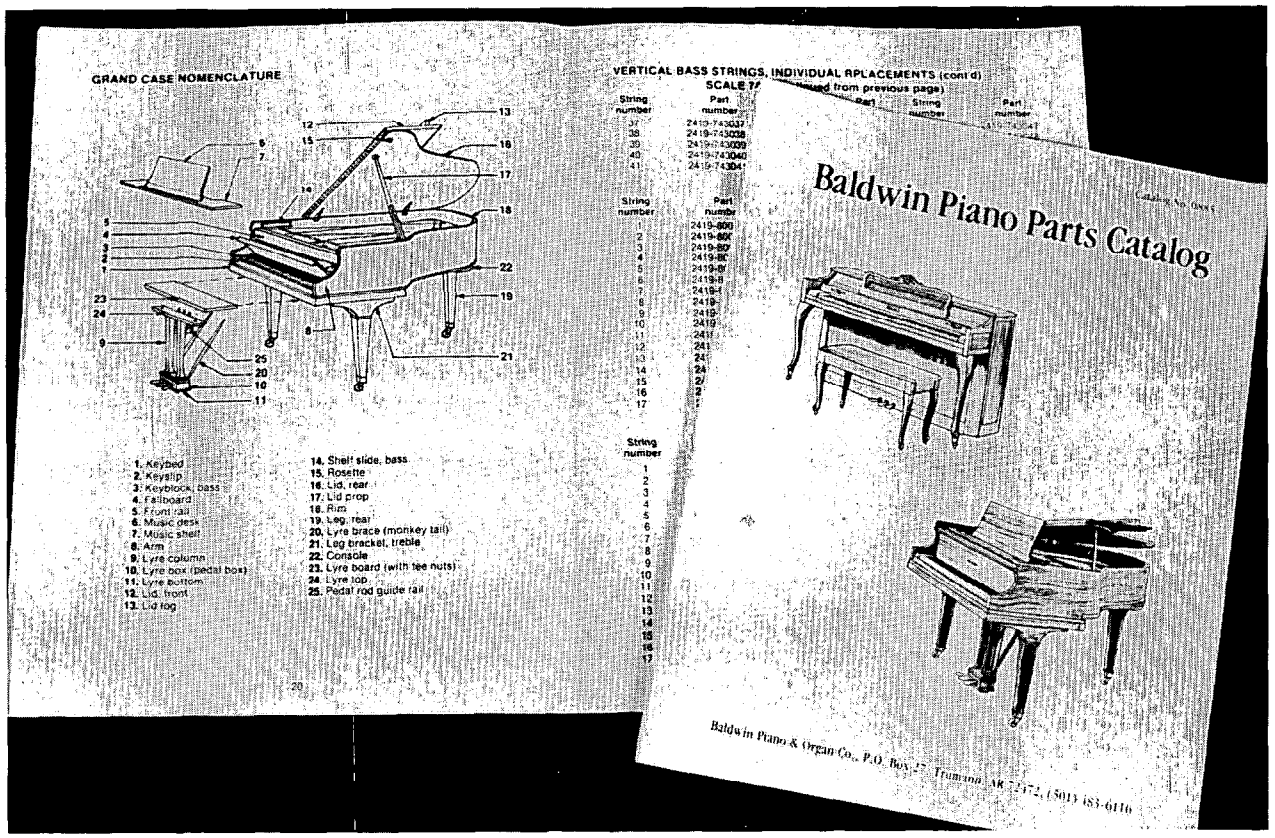

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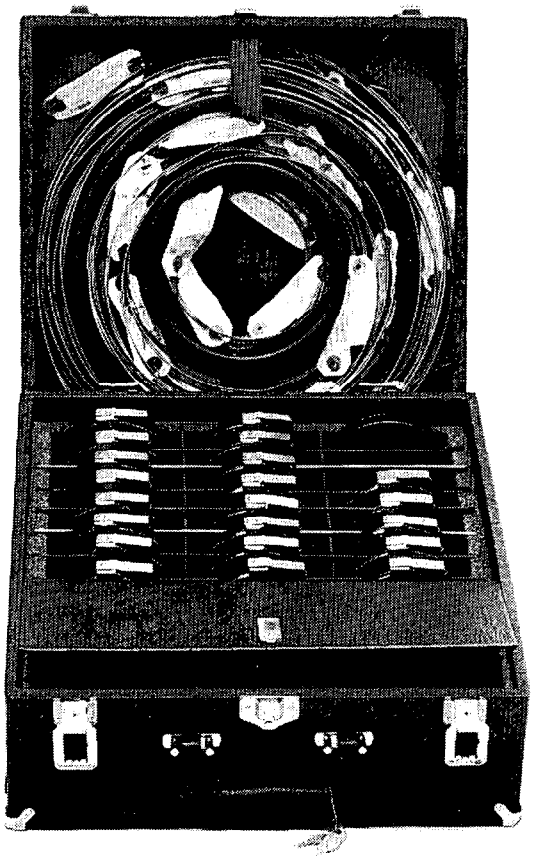

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Piano Technicians Journal **December 1985**

Official Publication of The Piano Technicians Guild, Inc.
Volume 28 *Number 12*

The *Piano Technicians Journal* (ISSN 0031 9562) is the official monthly publication of The Piano Technicians Guild, Inc., 9140 Ward Parkway, Kansas City, MO 64114. Second class postage paid at Kansas City, MO., US ISSN 0031 9562 foreign and domestic. POSTMASTER: send address changes to: *Piano Technicians Journal*, 9140 Ward Parkway, Kansas City, MO 64114.
Annual subscription price: $85 (U.S.) for one year; $155 (U.S.) for two years; $7.50 per single copy. Piano Technicians Guild members receive the *Piano Technicians Journal* for $45 per year as part of their membership dues.

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GET WARMED UP AND REVVED UP FOR THE YEAR TO COME IN SAN DIEGO!

The President's Perspective

Charles P. Huether
President

A Busy Year!

It is the end of the calendar year once more, time for parties, year-end festivities, gift giving and thanks. We have had a busy year in 1985; by "we," of course, I mean the Piano Technicians Guild.

"How busy a year was it?" you ask.

Well, it was certainly busy up here at the President's desk. Last year, upon taking office, I promised myself to visit as many seminars as I could. I continued that during all of 1985 and found myself on the go far more than I had planned. In addition, planning the 1985 Convention and Institute took a lot of my time, for we were also hosting the biannual meeting of the International Association of Piano Builders and Technicians. In spite of the many wonderful and talented people we had managing the details, there still seemed a lot of items which wound up on my desk or on my telephone for discussion. But it was worth the work. If you missed, you are the loser.

Working with our Home Office staff takes time as personnel changes and new ideas are implemented. The Technical tests, under development for two years, finally were completed and voted into place. We were busy administering them. There has been great discussion over revising the membership format and that, too, has taken a lot of time and work. Come July 1986 and the Convention, we should see the results of that activity.

In addition to all of this, some time must be spent making money and we have managed that fairly well. The new Mercedes is not in the driveway, but the old Ford is still in working order. We manage to keep the tank full as needed.

In retrospect, it has been a long year and a busy one. It has been a year where successful completion of goals and objectives were the result of hard work by many people, too many to mention them all; many working quietly behind the scenes, others more visible, all doing their part to help complete the mosaic which is The PTG. We are grateful to all, the sung and the unsung.

It has also been a year which has been very hard on the piano manufacturing business, especially that of the USA. We have seen a lot of hardship and heartbreak. To those who are our good friends and who have done so much for us, we offer support and good wishes, our sympathy. We wish that in the midst of what is supposed to be a prosperous economy, there was a larger and more stable place for those who are engaged in the essential activity of building pianos. It is hard for me to conceive this country in such a state of confusion as to not recognize the importance of the cultivation of the arts, especially music. Where will we find the basic culture upon which a civilized society is built?

It is hard to accept that the piano business in this country, once one of its leading manufacturing activities, once leader in the world, should be in such a decline. We seem to have reached a level where we can hardly support the makers of finest instruments. But it seems to be the sad truth.

This decline in domestic manufacturing is coupled with a world-wide decline in instrument sales. Everyone is hurting. What is going on?

While we have a certain security insofar as we work at servicing all instruments, new and old, still it behooves us to be aware of the potential which the present situation provides.

Let us end the year with optimism and hope, keeping in mind that each one of us must make our contribution to the maintenance of music and the piano as essential parts of our culture and our environment. Our obligation is to ourselves, to be sure, but it is also to the industry as a whole. We are beneficiaries of those who support us. Our responsibility is to make sure that their trust and support has not been misplaced. They need our support, too.

Our best wishes to all at this

(Continued on next page)

time. A blessed Hanukah, Merry Christmas. May everyone get a new piano as a present!

From The Executive Director

Barbara Parks
Executive Director

The Holiday Spirit

Whatever your faith, wherever you hail from, there's something magical about this time of the year.

For some, it's a religious holiday of the deepest significance. Others see it as a special time for family and friends. There's a snap to the air, a quickening of the step, a unexplainable glow that transcends even the lines in the department stores or the steady shrinking of everyone's bank account.

It's almost impossible not to be moved, even in these dog-eat-dog days. Our economy makes it tough to make a living, and tough to manage a business. We've certainly seen some changes, most of them unpleasant, in the music industry within the past year. Even when times are good, they aren't good for everyone.

But there's a lesson in this that ties into all the rhetoric about brotherhood and love for one's fellow human beings that we hear so much of this time of year — we're all in this together. When one company wins, another one loses. When one person is seeing his dreams realized, someone else is watching a nightmare come true. The competitor you run out of business may wind up depending on your tax dollars for food and shelter.

We are indeed each other's keepers.

* * *

There may be bad news for yet another group in the music industry, according to an article in the November issue of *Venture* magazine.

"That stern, gray-haired piano teacher you remember from childhood may soon be replaced by a computer. Texcon's MusicMentor can detect mistakes in timing, dynamics or pitch through a sensor placed on the inside of a piano. While it recommends that children use the computer to supplement lessons, Texcon hopes it will reach busy adults who would like to learn but don't have time for lessons."

The article goes on to say that the company will begin marketing the $900 device in January through Lowrey Industries, Inc. and hopes to have sales of $12 million by the end of 1987.

* * *

It's almost impossible to make it through the holidays with your heartstrings intact. No matter how cynical we try to be about the marketing gimmicks, the tinsel and the pre-Thanksgiving department-store Santas, some part of the holiday spirit always touches us.

Ever take a close look at Christmas decorations? Most of them are flimsy, tawdry, mass-produced bits of plastic and foil, designed only to create an illusion for a brief time before going into the trash. We hang them on a dead tree or, worse, a fake one.

There never was a tree that didn't have some kind of flaw. Trees don't grow perfectly, any more than people do. And yet, there's magic there. When you see a Christmas tree, you don't see the problem areas. All Christmas trees, even the most scrawny and poorly decorated ones, are perfect. That's because we see them with more than just our eyes.

Maybe we should try to look at other people the way we look at Christmas trees — ignore the flaws and thin spots, and see each other as we're supposed to be.

May your holidays be happy.

The International Scene

Fred Odenheimer
Chairman, International Relations Committee

Strong Dollar Dries Up Export Market

We recently saw some piano production statistics from the United States, Germany and Japan. While the above countries' domestic sales have considerably decreased, in Germany and Japan a good part of the decrease was made up through higher exports. It is also noteworthy that the biggest gains in exports were in grand pianos.

While for a time this country enjoyed exports chiefly of small upright pianos, the strong dollar has practically dried up this source of sales and this is why our domestic industry is hit that much harder. It is difficult to gain back your share of the export market once you have lost it, even when circumstances change.

We were happy that *Das Musikinstrument* carried an article about our Piano Technicians Guild and International Association of Piano Builders and Technicians conventions in German and English with some pictures furnished by our *Journal* Editor Larry Goldsmith in its September issue. We hope that in the future, small articles about our organization together with dates of conventions will appear in the same magazine and give us an additional bit of international exposure.

Looking through the advertisements of a trade magazine is always interesting. One can really learn quite a bit about our industry. There are names of manufacturers of old, there are some new ones and always some that may have been resurrected, not necessarily in their original form. In *Das Musikinstrument* we find an advertisement of a Rumanian piano factory by the trade name of "Caraiman." I did not know the name, nor did I know that there is a piano factory in Rumania.

For those of you who asked a number of times: "When is the next European trip? I want to go along," this is the time to make a decision. The program is ready, save perhaps for some small changes. If you want to have a vacation while at the same time have an important learning experience, this is your chance. For more information, write to Dan Evans, 4100 Beck Ave., Studio City, CA 91604, (818) 762-7544.

Also, do not forget "Friends of IAPBT." Yearly fees are just $15.

Grand Tour Set For May

Final details are almost complete for our next grand tour. We have planned a beautiful visit to Germany, Australia and Czechoslovakia.

Many piano and piano parts manufacturers have sent us most enthusiastic invitations to visit their facilities as we travel.

A complete itinerary with an application form will be inserted in the centerfold of the January 1986 *Journal.* Watch for it, and send it promptly with your deposit. The group will be limited to approximately 35 members.

And more good news — the cost will be only $2500 to $2600 from New York, only slightly more from Los Angeles. And that's for 22 days!

— Dan Evans

Economic Affairs

Robert Smit
Economic Affairs Committee

Diversification Is Key In Changing Times

Have you given any thought to what pianos will be like 20 years from now? Will we still be seeing small consumer-oriented pianos sold or will beginner piano students be learning on an electronic grand with the sound, touch and dynamic control of a concert grand.

I am inclined to think that it would be the next logical step in the evolution of the piano. Please don't think that I am pushing to have modern electronics invade the piano industry, but rather that I'm realistically preparing for the future. Where does that leave the piano tuner-technician? Those electronic pianos will probably need no regular servicing. This will surely have some impact on our tuning business. If you are a professional piano technician and you earn your living solely by tuning and repairing pianos, you might want to give serious thought to diversifying your business so as to develop income from other sources related to your tuning and repair work.

The best way for me to suggest this is to use the development of my own business as an example. After apprenticing with my father and working for a few years in my hometown, I made the move to the city where opportunities would be greater. So 10 years ago, I started. Lean times would follow because I had no source from which to develop other than relying on the business of one shaky retail piano store. When that store finally failed, I realized that I would have to restore and sell used pianos to help supplement my income.

I rented some shop space and started rebuilding good-quality uprights and grands for resale. Through advertising and word of mouth, it soon started to pay off. Then a good friend and supporter joined me and we formed a partnership. Word spread about the quality of our work and soon there was a lot of private rebuilding as well. We then test-marketed new pianos to satisfy the many requests we were getting. This worked out well enough to warrant continuing. We divided our shop in half and made one half into a small showroom where we could display our new pianos as well as our rebuilt uprights and grands.

We ruled out getting into the home organ business because of the difficulty of keeping up with the ever-changing technology but we were encouraged to take on an established classical electronic church organ business. Since we service a lot of churches, it is working out to be the perfect add-on.

You can see that our business has become diversified. The benefit is that our income need not suffer if trends in the marketplace change. We only have to change the focus of our effort to take advantage of those changes. I hope that no one thinks that I am advocating change but rather provoking thought about our future. To end on a positive note, it is my opinion that they haven't yet come up with a good electronic piano and even if they do, it will take years to develop acceptance in the marketplace. For me there is nothing like piano work, and I am confident that in our lifetime we'll never run out of pianos to work on.

THE
TECHNICAL
FORUM

Key Rebushing, Key Plates Falling Out, What's New And Readers' Comments

Jack Krefting
Technical Editor

We have received several letters in the past year or so regarding key rebushing procedures that may be considered acceptable by most technicians, so without quoting any particular questions, we will simply discuss the topic in general.

Key Rebushing

Before removing the old bushings, it is a good idea to inspect the old ones closely even though the decision to replace them already has been made. This inspection might well reveal unusual wear on a few bushings, indicating some particular problems such as nicked keypins which must be replaced so they won't prematurely wear out the new bushings as well, or it could reveal damage to the wood behind the bushings. Such damage, usually caused by over-easing of the key by a technician who had mis-diagnosed a sluggishness complaint, must be repaired before the key is rebushed. Any attempt to reduce the now-excessive clearance by using thicker bushing cloth is doomed to failure, as we shall see.

Figure 1 shows a "nested" bushing which has been caused by someone ill-advisedly prying the key sideways while working it up and down in an attempt to free a sticking key without removing it. This will free a tight front rail bushing, temporarily anyway, but doesn't solve the problem because now there is a considerably greater amount of cloth in contact with the pin; such a damaged bushing, in order to work at all, has to be excessively sloppy in side-to-side movement. The compressed wood behind the bushing will have to be restored somehow or the new bushing will be just as bad as the old one.

Figure 2 shows a front bushing that is nested on both sides because it had been over-eased and then bushed with extra-thick cloth, presumably to take up the excess clearance. This situation is like the previous one except that, because

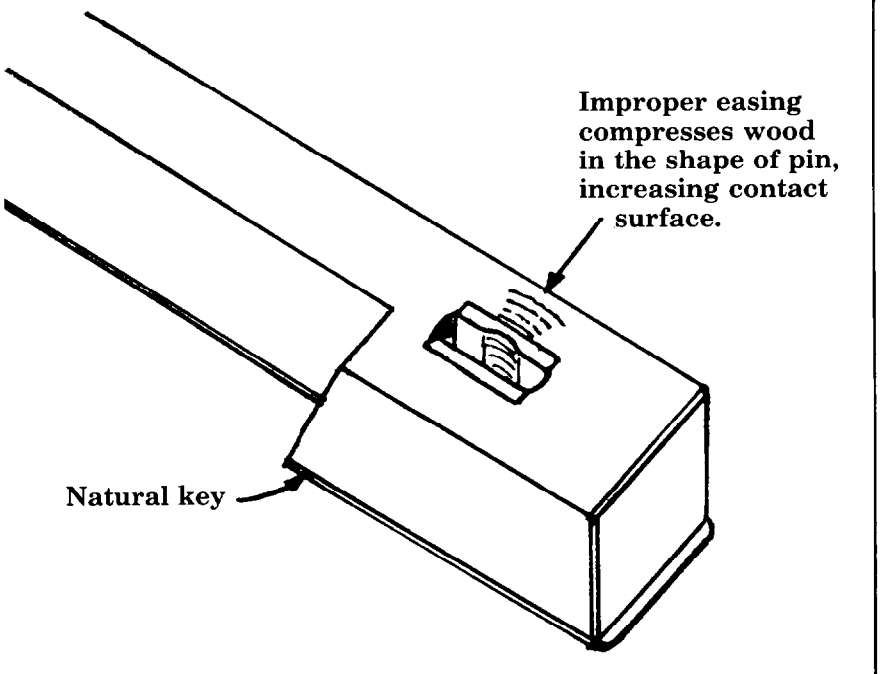


Figure 1

both sides have nested around the pin, it is twice as bad. The cloth is too resilient, allowing too much side movement even when the clearance is correct, so the key not only feels sloppy but also sticks whenever it is played with any side pressure. The only real solution is to remove the thick bushings, restore the mortise dimension by adding wood somehow, and then rebush with thin, hard cloth. If the bushings in question are at the balance rail, the same comments apply but it will usually be better to replace the key buttons. The standard buttons that have been available for years are made of soft wood and are generally of poor quality, so the suggestion from here is to spend a little more and get the good European hardwood buttons which, incidentally, are bushed with much better cloth than is found on standard buttons.

If the damaged mortise is at the front of a natural key, it is possible that any steam which may have been used to remove the bushing might have also caused the wood to swell back to its original dimension. If not, the mortise could be modified to accept a piece of veneer on each side, under the new bushing, or wood can be added as shown in *Figure 3*. Using a hobby knife or something similar, make a cut in the wood parallel to the mortise, being careful to place the cut closer to the mortise than the side of the key; otherwise when the veneer is driven into the cut, the side of the key will tend to belly outward. We want instead to decrease the width of the overeased mortise, hence the cut is made closer to it than to the side.

Now sharpen a piece of veneer, preferably maple, and at least 1/16" thick, dip the point in glue, and drive the veneer into the key with gentle taps from a small hammer. When the mortise has closed to its original width, trim the excess veneer and the problem is solved. This won't work on a sharp key because there just isn't enough wood to work with, but the sharp can be veneered on one side or the other with 1/28" or thinner stock.

One way or another, before attempting to rebush the keys it is vital that the mortises be of the proper dimension so that there will be just the right amount of clear-

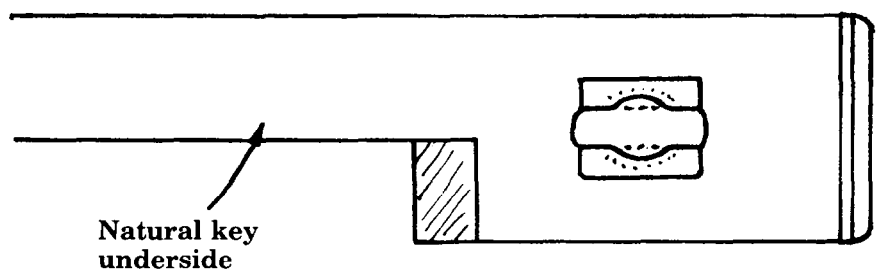


Figure 2

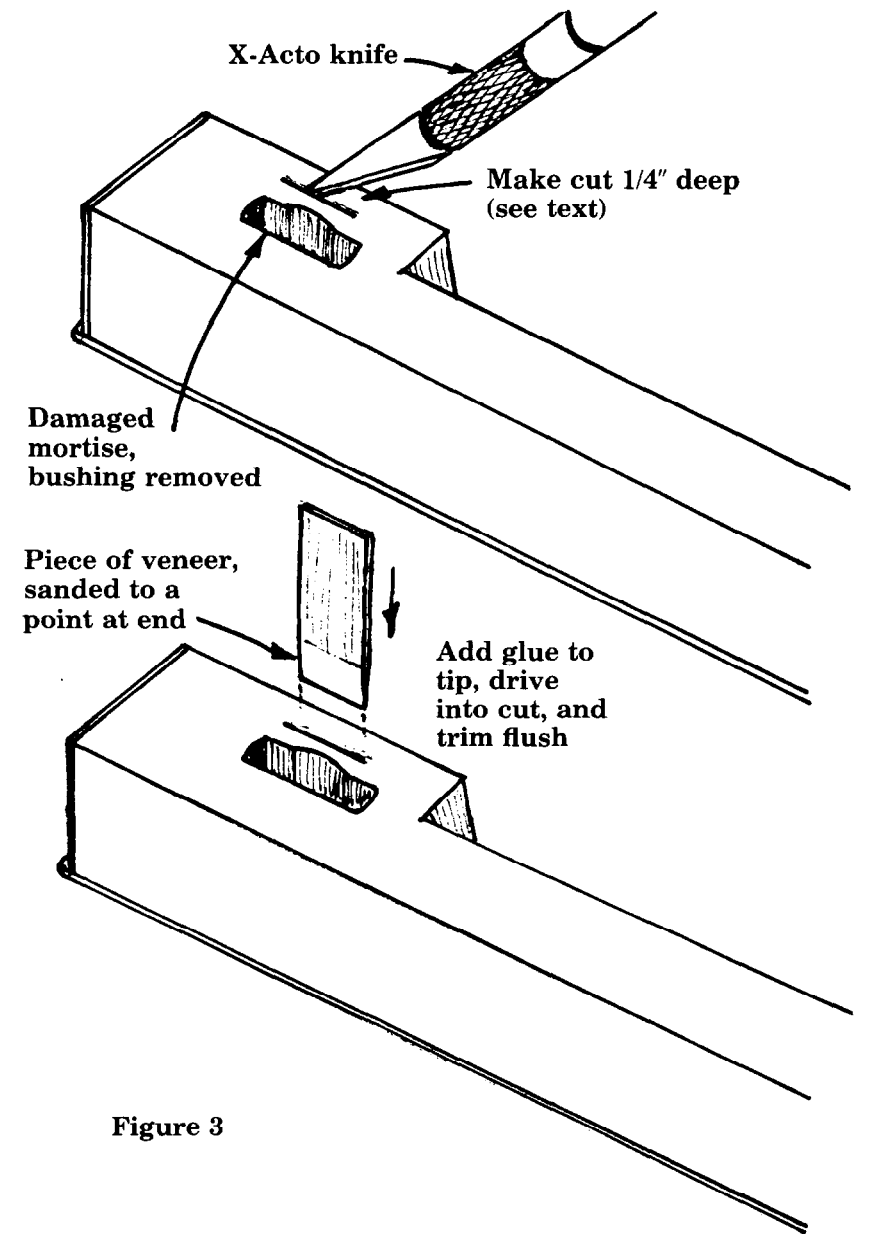


Figure 3

ance between pin and bushing when the thin, hard bushing cloth is used. One maker of aluminum bushing cauls has suggested that the nominal clearance should be zero at the balance rail and 0.002" at the front, meaning that the bushing caul should be the same dimension as the balance rail pin, and slightly wider than the front pin. There are a few variables to consider, obviously, but this certainly provides at least a point of departure. Four sizes of aluminum bushing cauls are available from suppliers, and at $40 or more per set they represent a sizable investment; however, we have yet to hear of any technician who regretted the purchase after having once used them. They seem to provide better uniformity of pin clearance than did the old wooden ones.

While the most common rebushing mistakes are doubtless related to the width of the unrestored mortise or the thickness of the new cloth, it is also fairly common to see keys bushed with too much cloth at the mortise. Avoid having more than 3/16" of cloth vertically inside the front mortise, as excess cloth means excess friction. This is just as bad as a nested bushing, requiring the same excessive clearance for freedom of operation. It is a shame to rebush a set that was wobbling and yawing, only to find that the replacement was done in such a way that they wobble and yaw with the new bushings, too, because they have to be over-eased to prevent sticking.

One way to be sure of just how much cloth is inserted is illustrated in *Figure 4*. After applying glue to the wood on both sides, hold one strip of cloth so that it extends to the far side of the mortise, and another from the opposite side that extends to the near side. Hold the cloth to keep it from pulling into the mortise on either side, and push the aluminum caul firmly into the hole. A preliminary trimming may be done immediately at either side of the caul, or it may be laid aside to be trimmed after the glue has cured. In either case, after the caul is removed, any part of the cloth that projects below the bottom face of the key must be trimmed off with a razor blade; otherwise key dip cannot be set accurately and the naturals will be spongy to the pianist's touch.

In our opinion, the best kind of glue for rebushing is low-grade hot hide, partly because its working time is about right for this kind of work and partly because it can readily be steamed out when it is time for the next rebushing job, unlike many modern adhesives. If hot hide glue (or a suitable glue pot) is unavailable for some reason, our second choice would be cold hide glue, such as that made by the Franklin Glue Co., of Columbus, OH. Cold hide can be steamed out just like hot hide, and holds the bushings just as well, but rates second because of its relatively long clamping time. Hot hide gets most of its strength from chilling, which happens in a few minutes, while cold hide must rely on evaporation, which can take hours in a humid environment.

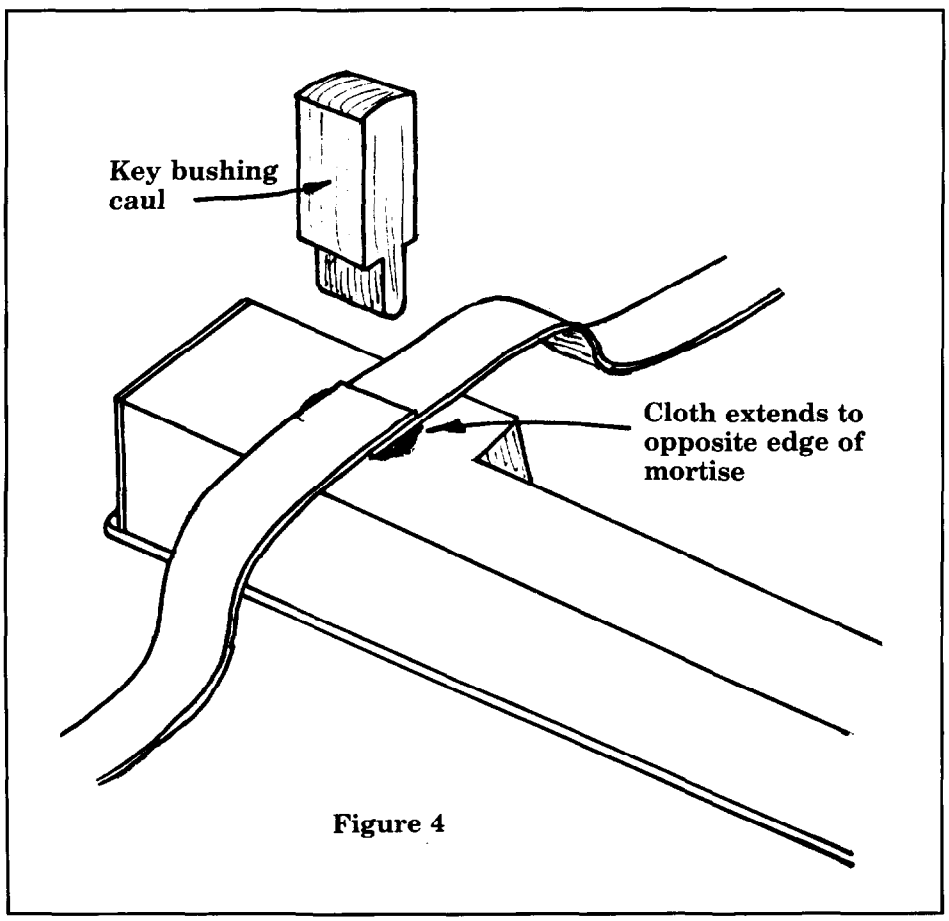


Figure 4

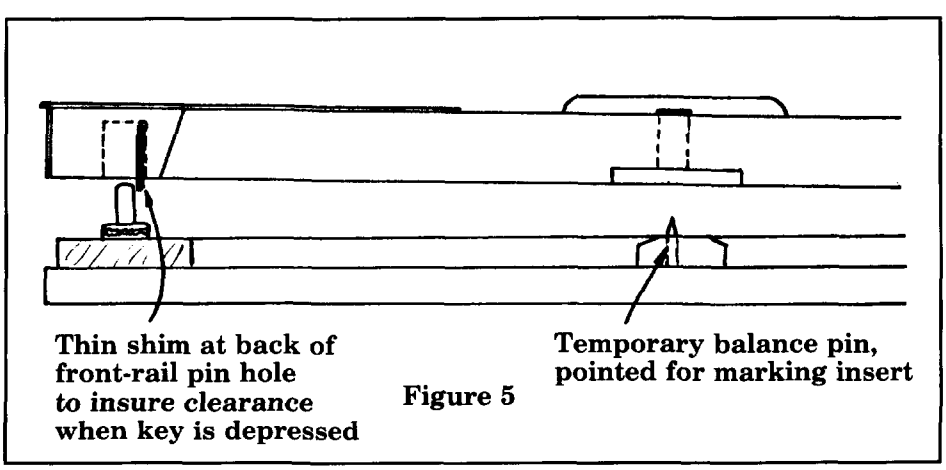


Figure 5

Key Plates Falling Out

The following letter, referring to *Figure 5*, describes an unusual keyboard problem:

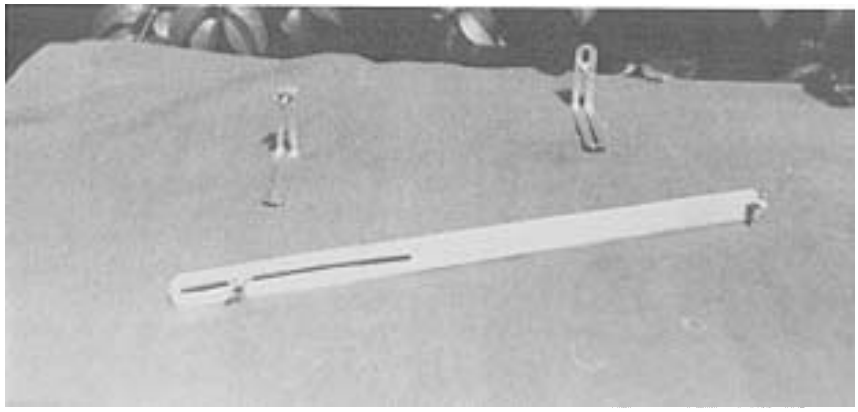
I have a good-quality grand that has presented me with a problem, one I cannot remember seeing or hearing of before. The keys are made with wooden inserts at the balance-rail. On about a dozen of these, the glue has broken down and the inserts fell out into a box. Now they are mixed up and, of course, not interchangable. The only solution that occurs to me is the one shown in the accompanying drawing. I intend to place a short pin at the balance-rail for marking new, undrilled inserts. Before drilling, spacing of keys and position of capstan under wippen must also be considered. A thin shim must be placed temporarily in the back side of the front-rail pin hole so the pin will not bind when the key is depressed.

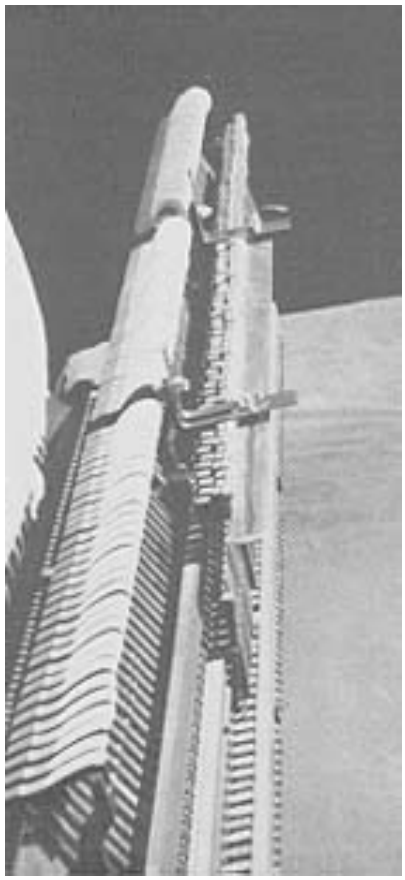
If you can come up with something better, I will be glad to hear of it. This is the kind of mess you can sometimes get into when you take something apart and don't get back to it for a long time.

Charles Bonner
Santa Barbara Chapter

It is true that these key plates are not interchangeable, but it is possible that it would take less time to refit the old plates by trial and error than to replace them. I would place all of the undamaged keys on the keyframe and dry-fit key plates on the damaged ones, using the back ends of the keys as a reference point, and also taking note of the side clearance and tilt. Assuming the balance rail pins have not been moved since the keys were removed from the frame, try to find a plate which, when centered under its key, will square the keytops to a straight-edge, space the key evenly at the balance rail, and align the key fore-aft with its neighbors. If this becomes a nightmare, one could always dry-fit only for fore-aft alignment, then move the plates sideways until the tilt and spacing is corrected and trim off the overhang on one side of the key after the plate is glued to the key. If such an overhang is no greater than, say, 1/16" or so, it should not seriously weaken the key to do it that way.

If refitting of the original plates





What's New?

The accompanying photos show a new device for holding vertical dampers so that the spoons can be bench-regulated. The inventor is member Natividad Bustamante of Claypool, AZ, who has applied for a patent on the device. Though the prototype is made of aluminum, Bustamante says the production models will be of stainless steel for added rigidity. Bustamante's address is 335 Broad Street, Claypool, AZ 85532.

Walt Sierota of the Philadelphia Chapter has a bright idea, too, or maybe we should say an idea that works in bright light. His gadget, illustrated in *Figure 6*, is simply a disc of hardwood with nine holes drilled to correspond to the flashing lights of his Sight-O-Tuner. According to Sierota, it is difficult to see the diodes light up when tuning outside or in direct sunlight, and this device acts as a sunshade. When needed, it can be temporarily glued in position with contact cement.

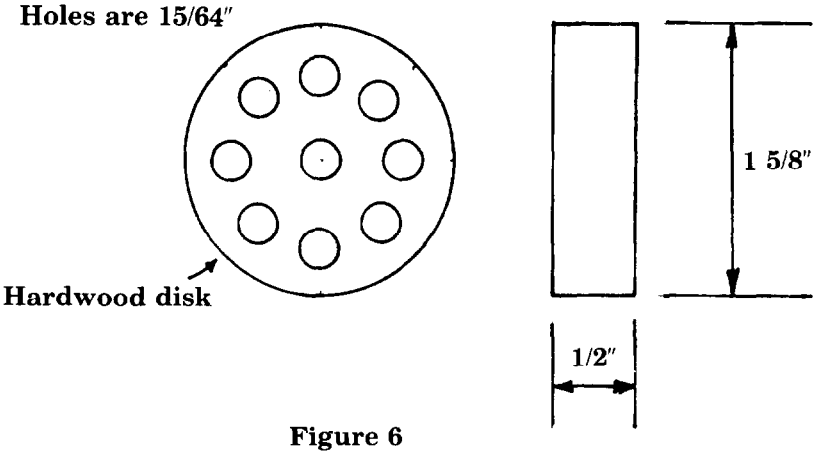


Figure 6

is not practical for whatever reason, or if they are damaged and should be replaced anyway, another method is given in the Forum of July 1984 and September 1984. The basic approach differs from Bonner's method in that the balance rail holes in the keyframe are plugged and redrilled at the same time the key plates are drilled, thus assuring proper key alignment without requiring a dowel center. We can see no real problem with the Bonner method, though, so long as it is understood that the shim behind the front rail pin is used only to assure clearance and not for the fore-aft alignment. In that regard, the front or back of the key would be the best point of reference.

Readers' Comments

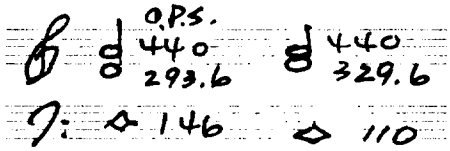
Here's one for the book. I have a habit when finished with my felt muting strip to toss it without looking and try to hit my tool case. Nine out of 10 I miss. Recently after tuning, I tossed both strips without looking toward my case as usual, not knowing the lady of the house was near me. We got into a conversation and I overlooked the strips which had fallen near the piano. I closed my case and left without them. My next tuning, I missed my muting strips and remembering the time before I called the lady and asked her if she had found some red felt near her piano.

She answered, "Oh, yes, Mr. Ott, and I wanted to tell you how much better it sounded after you tuned it and took that old stuff out of it." I asked her what she did with it, and she told me she burned it with the rest of the trash.

Mel Ott
South Whitley, IN

...This is my 40th year tuning. I taught tuning at the MacPhail Center for 17 years, and tuned for the orchestra for 16 years. The subject is "Using the differential note to test octaves."

When fourths and fifths are used to test the octave, a resulting "low harmonic" is heard. This occurs roughly between G4 to G6 on better grands. Here's what it looks like:



Not only do you listen for beats, but the differential notes should also be in tune.

Also I am now stringing grands like Challis harpsichords; that is, blue pins for sharps and nickel pins for naturals — makes for easier tuning.

Cliff Johnson
Minneapolis, MN

Please send all technical material for publication to me at the address listed below and please don't be offended if a letter of confirmation doesn't arrive by return mail. Having no secretary and not much spare time, I am not able to correspond as much as I would like, and certainly appreciate the understanding of all of our valued contributors in this regard.

Jack Krefting
PO Box 16066
Ludlow, KY 41016

TOOLS OF THE

TRADE

Using The Accu-Fork

Richard Hassig
Tri-City, IL, Chapter

For a couple of years I have been carrying and using the Accu-Fork made by Dr. Sanderson. This instrument is adjustable in pitch 50 cents flat or sharp, and you can tell by feel when you have arrived at zero. Mine is equipped with a scale for reading with the fingers. I must admit the tuning bar which I formerly used had a certain charm and was impressive. For those reasons, I was very reluctant to give up its use, but I do like this electronic tool.

Occasionally we are called on to tune the piano in a church, and tune the piano to the organ. Of course, the organ is always right. Sometimes, the organ is two things: not on pitch and clear across the sanctuary, or in the balcony, so the two instruments are a good distance apart. It makes the work much easier and more accurate, by the way, to go to the organ, set the electronic fork to the organ, return to the piano and go to work.

This tool is fantastic for use in raising pitch! It is equipped with four notes: A, B-flat, B and C. When I bought mine you could pick any four notes, but this is the standard model. Let us say we are going to raise the pitch quite a bit, half a tone or so. First we decide how much sharp to tune the center section and tune the fork up that far. Then tune A below middle C an octave down from the fork, B-flat, B and C. With those four notes tuned, it is quick and efficient to set a reasonably accurate temperament. We know that raising pitch that far we will have to go through the piano again, but you might be surprised how quick and accurate you can be.

"It makes the work much easier and more accurate, by the way, to go to the organ, set the electronic fork to the organ, return to the piano and go to work."

I doubt that the inventor of this tool had this use in mind, but I have used this instrument as a beacon. More than once, I have been working in a church basement or some large place alone. I am nearly finished and wish to go to the telephone to call for my transportation. Between me and the phone is a great bunch of chairs and tables, a long corridor with many rooms branching off, or some situation like that. I know that I can find the phone, but I wish to be able to find my way back to the piano fairly quickly. I have placed the tuning fork turned on on the piano, made the call and followed the homing sound back. Too bad there is not a built-in telephone in the fork. Well, you can't have everything.

SOUND
BACKGROUND

Cristofori's Last Work And His Successors

Jack Greenfield
Chicago Chapter

Last Surviving Piano

The last surviving instrument considered definitely built by Cristofori is the 1726 piano now in the Leipzig museum. A 1726 harpsichord in the same museum, a single keyboard instrument, has 16-foot, eight-foot, and four-foot stops. The 16-foot stop and other sign of alteration make its authenticity doubtful, but a 1722 harpsichord at Leipzig, with single keyboard and two eight-foot registers, is accepted by authorities as genuine.

Scarlatti and Florentine Pianos Come to Spain

Cristofori's last instrument may have been pianos he built or started for the daughter of Portugal's King John V, Maria Barbara, who married Crown Prince Ferdinand of Spain in 1729 and became Queen when Ferdinand succeeded to the throne in 1746. Maria Barbara was a student of Domenico Scarlatti. Scarlatti's associations with early piano and its introduction into Portugal and Spain is told in the biography *Domenico Scarlatti*, by Ralph Kirkpatrick (Princeton University Press, Princeton, 1953). After brief visits to Florence in 1702 and 1705 where he evidently first became familiar with Cristofori's pianos, Scarlatti spent four years in Venice performing, composing and studying.

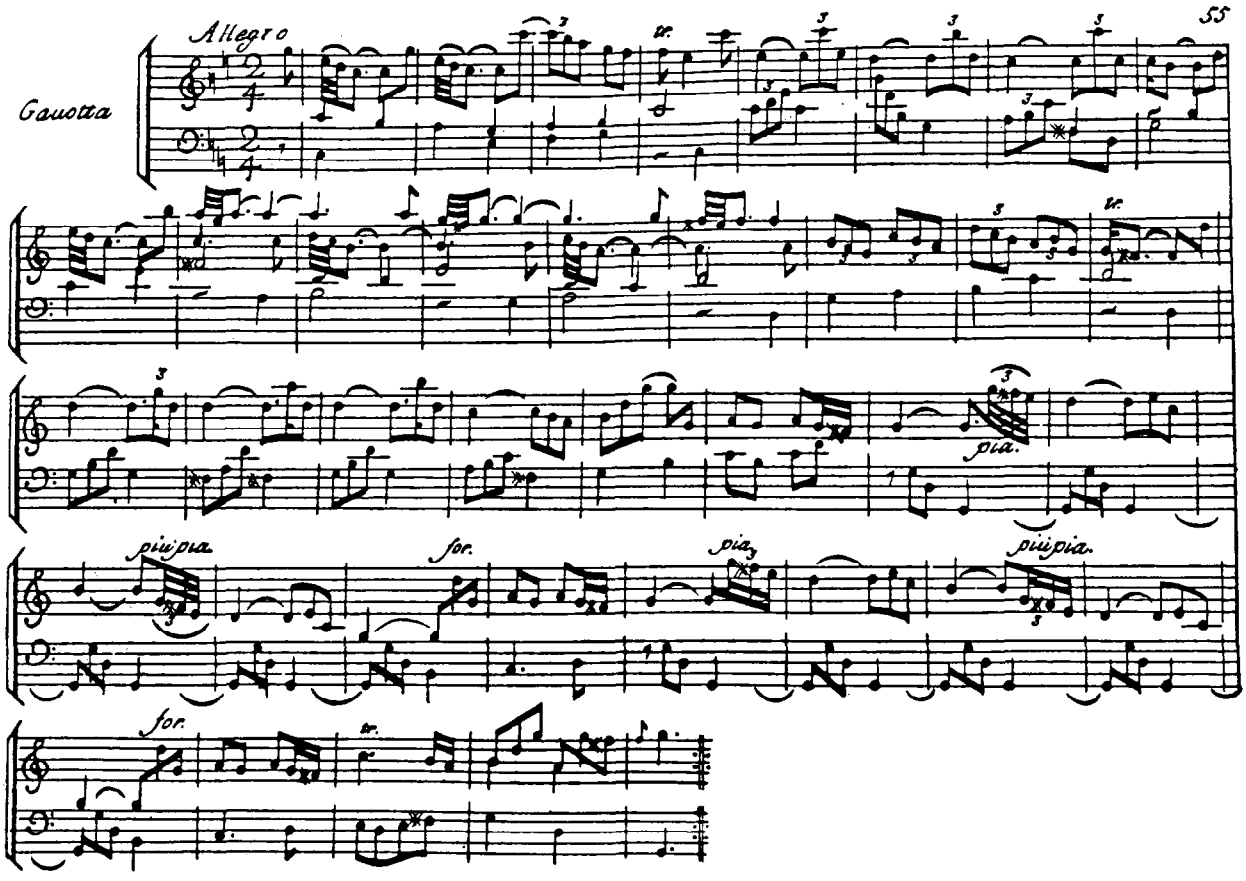
In 1709, he returned to Rome to take a position vacated by his father Alessandro, who had gone back to Naples to work for Cardinal Grimani, Viceroy for the Austrians who now controlled Naples. After several years, Domenico moved to a position at the Vatican. Since this did not occupy him fully, he also served as *maestro di capella* to the Portuguese ambassador, the Margues do Fontes. Drawing on wealth gained from Portugal's colonial possessions, the Portuguese mission was one of the most opulent in Rome. In August 1719, Scarlatti decided to leave Rome for a position at the Portuguese royal court in Lisbon.

"After brief visits to Florence in 1702 and 1705 where he evidently first became familiar with Cristofori's pianos, Scarlatti spent four years in Venice performing, composing and studying."

According to Kirkpatrick, Scarlatti went directly to Lisbon, arriving in September 1719. Some biographers state that Scarlatti worked at the Italian opera in England first, but in Kirkpatrick's opinion this was a relative, not Domenico. At Lisbon, in addition to his duties directing, performing and composing for the Royal Palace and the Royal Chapel, Domenico had charge of the musical instruction of Maria Barbara, the King's daughter and Don Antonio, the King's young brother. Maria Barbara was an accomplished harpsichordist and maintained an intense interest in music throughout her entire life.

Domenico made several trips back to Italy. On one trip, he saw his father Alessandro living in Naples in relative retirement just before he died in 1725. In 1728, Domenico went back to Italy to get married. His age was then 43 years. His bride, a member of a good Roman family, was a beautiful girl only 16 years old.

About a year after Scarlatti and his new wife had been in Portugal, they moved on, this time to Spain. In 1729, when Princess Maria Barbara of Portugal married Crown Prince Ferdinand of Spain, she asked Scarlatti to follow her to Spain to serve her and Prince Fer-



"Gavotta" from Sonata No. 9 by Lodovico Giustini di Pistoia, 1732; showing markings from graduated dynamic expressions. Copied from The Piano-Forte *by Rosamund E.M. Harding. Reprint of 1933 edition by DaCapo Press, 233 Spring Street, New York, NY 10013.*

dinand as music master. Ferdinand was not gifted musically, but he played harpsichord well enough to accompany the singing of his wife or other soloists.

It was only after Domenico moved to Spain that his great talent and ability began to develop to the fullest potential. Before, Domenico's career had been one of a journeyman musician and composer. Most of what he had written was undistinguished opera, no better or worse than the works of many other contemporary composers that were forgotten soon after being performed. In contrast, his father had been a celebrity, one of Europe's leading opera composers. Now Domenico did not have to try to match his father's accomplishments. Alessandro had been a capable harpsichordist, but Domenico was a master and he could now devote his outstanding talents to the keyboard where his interest really lay.

The fact that Maria Barbara owned some Florentine pianos that may have been obtained on the advice of Scarlatti was revealed decades ago by Kirkpatrick. During research for his biography of Scarlatti, in the library of the Royal Palace in Madrid, Kirkpatrick found the will of Maria Barbara and an inventory of keyboard instruments she possessed at the time of her death in 1758. Kirkpatrick's book, Appendix IIIB, contains the inventory in the original Spanish. An English translation is given in Appendix 18, *The Harpsichord and the Clavichord,* by Raymond Russell.

The list contains pianos with two converted to harpsichords. Descriptions include statements "Pianoforte made in Florence," but do not give the name of the builder. The instrument keyboards ranged from 49 to 56 notes, of ebony and bone in the pianos converted to harpsichords and ebony and boxwood in the others. Interior wood parts were of cypress. The outer cases were of painted cypress or hardwood on turned legs of beech. Seven harpsichords are also listed, four with painted or dark lacquer outer cases and only three in clear walnut. The three best instruments, one of the pianos and two harpsichords, were willed to Carlo Broschi, who served as a music advisor in the Spanish Royal Court from 1737 to 1759. Previously, under the stage name Farinelli, he had acquired international fame as one of Europe's leading opera singers.

Kirkpatrick's book also quotes a 1770 interview of Broschi by the English music historian Charles Burney in *The Present State of Music in France and Italy* (London, 1773; facsimile edition published by Broude Brothers, New York, 1969). Broschi's favorite instrument was his pianoforte, made at Florence in 1730. Farinelli's biographer Giovenale Sacchi, writing in 1784, gave more details and stated that Broschi's piano had been made in Florence by Ferrini, a pupil of Cristofori.

Piano Sonatas Written For A Portuguese Prince

There is also an indication that by 1732 or probably earlier, pianos may have been built in Florence by Cristofori or Ferrini for Prince Don Antonio of Portugal, Scarlatti's former pupil. In 1732, Lodovico Giustini of Pistoia, a city near Florence, published the first known dated music composed specifically for the piano, a set of 12 sonatas *Sonata da cimbalo di piano, e forte.* The work was dedicated to Don Antonio. There are no other documents concerning the possibility of Florentine pianos at the Portuguese Royal Court. Most of the records of the Court were destroyed during an earthquake in 1755.

The sonatas, all in four or five movements, cover the range B1-C6 and include every chromatic tone. Markings indicate a graduation of dynamics not possible with harpsichords. A modern facsimile edition of Giustini's music, edited by Rosamund E.M. Harding, has been published but is out-of-print now.

Cristofori's Successors

According to most references, Christofori died Jan 27, 1731, as shown by the records in St. Jacob's Church, Florence ("Cristofori," *Die Musik in Geschichte und Gegenwart*). The book *Giraffes, Black Dragons and Other Pianos,* Edwin M. Good (Stanford University, Stanford, CA, 1982) gives Jan. 27, 1732, on the authority of Mario Fabbri, the modern scholar who discovered many new details of Cristofori's work. Cristofori lived almost 76 or 77 years, spending over 40 in the service of the Medicis. At the time of his death, his work on instrument building was taken over by his chief assistant Giovanni Ferrini. Cristofori's position as curator of the Medici Court collection of instruments was given to Pietro Mazzetti.

Mazetti is not listed as a builder in the references on Italian harpsichords consulted. Ferrini evidently was a much younger man since he lived at least until 1755. He built harpsichords as well as pianos. There are no records to indicate what pianos, if any, he may have built after those listed in the will of Queen Maria Barbara. However, a four-octave harpsichord, date 1731, with two eight-foot registers is now in the possession of a private owner in Pistoia. A 1751 Clavichord, identified as built by Ferrini, in the Harding instrument collection now owned by the Art Institute, Chicago, is of questioned authenticity. Another instrument Ferrini may have worked on is a harpsichord in the collection of the Metropolitan Museum of Art, New York, with an inscription stating it was made by Zenti and restored by Ferrini in 1755. Zenti was a builder of the mid-17th century. The Medici collection had included several Zenti instruments.

Other than their names, nothing more is known about two other Cristofori assistants, Geronimo of Florence and Gherardi of Padua. There is a possibility that men trained by Cristofori may have moved to Germany where piano building had begun in the early 1730s.

The last surviving dated example from the first era of Italian piano building is an upright piano dated 1739 in a musical museum in Florence. A similar instrument, but undated, is in a museum collection in Milan. The maker of both instruments, possibly the first verticals ever built, is reported to have been Don Domenico del Mela di Gagliano. These and other early vertical pianos were based on the vertical harpsichord.

Because of some similarities in their action designs, Don Domenico may have been another pupil of Cristofori's. Cristofori built vertical harpsichords, but there is no evidence that he made any vertical pianos.

Due primarily to lack of interest in the instrument, piano making in Florence finally died out some time during the middle of the 18th century, but it did return. In 1828, a new piano factory was opened with craftsmen brought to Florence from Vienna. By the end of the 19th century, there were at least 15 small piano factories in Italy, most of them concentrated in Turin.

Cristofori's Successors

Piano making by successors to Cristofori in Florence may have continued until 1759 or longer. Sybil Marcuse, an authority on the subject, states in her book *Survey of Musical Instruments,* that an advertisement for Italian pianos, possibly from Ferrini's workshop, appeared in Paris in 1759.

Equal Temperament With Pure Fifths — "The New Tuning"

"A New Equidistant 12-Tone Temperament" by Mieczyslaw Kolinski (*Journal of The American Musical Instrument Society*, Summer-Fall 1959) is a unique approach for tuning in pure fifths to give "stretched" octaves. Instead of an octave divided into 12 semitones of 100 cents (ratio equivalent to $12\sqrt{2}$), Kolinski divides the pure fifth, approximately 702 cents, into seven semitones each 100 2/7 cents (ratio equivalent to $7\sqrt{1.5}$, since 3/2 is the interval ratio of a pure fifth).

A tuning circle of pure fifths, pure fourths and octaves gives an excess of about 24 cents. The Kolinsky intonation gives a circle with pure fifths, fourths 500 10/7 cents (3 3/7 cents wider than pure — 498 cents) and stretched octaves only 1203 3/7 cents wide.

Kolinsky suggests starting with a pure fifth and completing an eight-tone temperament spanning the fifth, by tuning with major thirds beating slightly faster than in standard equal temperament. He gives no additional details, but the following general principles can be used in checking.

1. Minor thirds should beat faster than major thirds with the same bottom note.
2. In root position, minor triads with the fifth pure, the minor third should beat approximately the same as the major third above.
3. Beat rates of thirds should increase ascending chromatically.

Kolinsky directs that extending from the temperament into the treble and bass be done by tuning with pure fifths and multiple fifths. This type of tuning adds additional "stretch" beyond the compensation for inharmonicity in accurate methods for standard equal temperament.

The recently published book *The New Tuning* by Lucas Mason (Echo Productions, Saddle River, NJ) gives information on the step-by-step procedure the author has developed for practical application and provides more explanation of the theoretical background.

BOOK REVIEW

'The New Tuning,' by Lucas Mason

Allen Wright
Central Florida Chapter
(From The Ivory Tower)

In the brochure sent out to announce publication of this book, it is claimed that the author's "new tuning" system is a scientifically accurate but easy to learn technique for tuning keyboard instruments based on perfect fifths (rather than the slightly narrowed fifths of equal temperament) which can produce results far superior to the old style of tuning. I'd like to examine here whether these rather broad claims are justified.

One admirable aspect of the book is the author's interest in encouraging and extending the ability of piano technicians to perceive various aspects of piano tones that he or she may not have been aware of or attended to before. There are useful suggestions about ways to practice hearing higher up into the "harmonic rainbow" (to use the author's colorful phrase), for example, and information about the relationship between various partials in different intervals and even chords. Of particular interest to this reader was the discovery in this book that difference and addition tones (which are very easily heard, for example, when two flutes are being played together) can be heard on the piano, something I had not previously been aware of.

"Of particular interest to this reader was the discovery in this book that difference and addition tones...can be heard on the piano, something I had not previously been aware of."

A difference tone is the tone created as a result of the difference between the frequencies of two tones, for example if E44 (330 cps) and A37 (220 cps) are sounded together, the difference between the two frequencies is 330-220 = 110 and this tone, A10 (110cps), can be heard sounding very faintly below the two other ones.

An addition tone results (as the name would imply) from the addition of the frequencies of the two tones, for example if A37 (220 cps) and E44 (330 cps) are sounded together the addition of those two frequencies 330 + 220 = 550 cps, roughly the same tone as C#53, which is a particularly interesting result if you consider that this creates an interval of a tenth with the bottom note of the A-E interval, and thus a major chord (even if the C# is very faint). To my way of thinking, this reinforces in yet another way the strongly tonal basis for music which is naturally created

because of the way the harmonic series is constructed and constantly implies certain harmonic structures when different intervals are played, especially on an instrument with such a rich spectrum of harmonics as the piano. The partials are what we as tuners deal with everyday, and Mason's point that there are great advantages to be gained by making oneself aware of all the various aspects of piano tone (rather than simply hearing them, perhaps being confused by them and so ignoring them) is very well taken. I can't, however, go along with the author's evident conclusion that these very faint tones can possibly be of any more than academic interest and should have any influence on our actual tuning procedures.

Another interesting aspect of this book is the fact that the pages are printed on one side only, with the opposite page left blank so that (as the author suggests) the serious student or professional can make notes relating to personal application. One can't help but wonder, though, whether this was perhaps just a unique way of "padding" the book so as to make it have a weighty appearance and thus to justify the equally weighty price of the book, which if it were printed with smaller type in regular book format (rather than having evidently been typed on a typewriter) would probably not total more than about 75 pages. At any rate, I appreciated the space in which to jot my many and varied comments and criticisms of the book as I read along.

My overall judgement of the book would have to be that it suffers from an overabundance of extremely questionable and even misguided theory at the expense of useful substance or practical application. There are certain glaring weaknesses in the basic ideas underpinning the whole system, in my opinion. To begin with, the author's feeling (one suspects almost an obsession) that the slight tempering of the fifth which is necessary in equal temperament but is a serious (and indeed, near-fatal) flaw, and reason enough to throw over the whole system for another — one that is based on perfect fifths and extremely expanded octaves and fourths — is to me questionable in the extreme, and a classical example of the Straw Man syndrome. It is hard for me to believe that the slightly narrowed fifth in a piano of decent quality tuned in equal temperament is beating at a fast enough rate to be objectionable to any normal listener's ear. Before equal temperament was widely adopted, many of the earlier temperaments were developed in an effort to slow down the faster- beating intervals (such as the thirds in meantone temperaments, for example) and musicians were more than willing to let the fifths suffer even more than they do in equal temperament. What is one to make of a tuning system in which in order to make the fifths pure and beatless, all of the expanded intervals are of necessity expanded even more than they normally are in equal temperament? In Mason's temperament E44-A49 (A440) should theoretically beat at 2.5 bps, the octaves are expanded more (A49-A61 beats at 1.7 bps, and A61-A73 at 3.4 bps!), and thirds and sixths are also expanded so they are even faster beating intervals than they already are in equal temperament.

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> . . . it suffers from an overabundance of extremely questionable and even misguided theory at the expense of useful substance or practical application.
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Which brings me to another serious problem that I have with the basic reasoning behind this book. Inharmonicity is only briefly and somewhat vaguely referred to in an effort to explain away the rather noticeable beats that are created in the octaves with this system. The author explains that the out-of-tuneness (which one would expect from the beat charts which are presented) does not occur on most pianos since the harmonics of piano strings are out of tune to the same degree, an evident dodge of the issue and a muddled explanation, which reveals the author's evident lack of understanding of the concept of matching partials at different levels while tuning octaves in order to obtain the most favorable amount of overall octave stretching to make the whole range of the piano sound integrated. Actually, for the same reason that the author tries to claim that these absurdly expanded octaves sound acceptable, of course, the fifths in equal temperament do actually beat slower than they should theoretically, because of inharmonicity. The author relies heavily on complete sets of beat charts in the appendix of the book to instruct the reader on setting his temperament, which once again tends to belie a less-than-complete understanding of inharmonicity and its effects on actual beat rates in real pianos and the importance of thinking in terms of relative beat

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speeds rather than specific theoretical ones.

Up to a certain point, I had disagreed only on theoretical grounds with this new system, but when the time came to sit down at the piano and try to execute the temperament as presented per the instructions in the book, the author and I parted company completely. I found myself instructed to lay the bearings between C52 (the C above A440) and C64! Now I have encountered many different and effective temperaments, C40 to C52, D to D, F to F, and A to A, for example, but why in the world try to set a temperament (in which all the fast-beating intervals are beating even faster) at such a high level on the keyboard? Why not drop it down an octave to C40-C52? It would probably take a freqency counter, a calculator and a great deal of patience to even begin to deal with some of the beat relationships which the author urges us to compare. For example, the D-B sixth in his temperament octave should be beating (theoretically) at 15.46 bps while the G-B third beats at 16.83 bps. It has been established that any beat speeds above 16 bps are no longer heard as beats by the human ear and become instead an indistinguishable blur.

Although the author displays seemingly impressive credentials in the advertising brochure, they appear to be more musical than piano-technical-related, and one can't help but suspect that this approach was developed at least partly in isolation from the mainstream of current developments in tuning theory. Otherwise, how can we account for such a glaring omission as any reference at all to the now-standard sixth-tenth test for fifths (particularly in a system that's based on the proposition that all fifths should be created equal, or "just") or the third-sixth test for fourths? Or in neglecting to suggest the use of a "crutch" key for setting the starting note to the tuning fork rather than merely trying to tune the corresponding note on the piano directly to the tuning fork, with all the inherent error that can entail?

This book, while occasionally containing useful facts (although even these are more often of academic rather than any practical value) could be a real minefield for the unwary student or ill-informed amateur, and would create more problems than it could

ever solve in the already-accomplished tuner's technique. I could recommend the book only in the negative sense that it can be of a certain amount of value if only because it forces you to think more clearly through what you currently know or don't know about tuning in order to come to grips with and decide for yourself the value of a system that is presented as a desirable alternative to the present one. Generally speaking though, to my thinking, this book is more of an exercise in numerology, full of a kind of self-serving logic of its own (yet another attempt as squaring the circle, so to speak, or turning lead into gold) and ultimately a giant step backwards in tuning theory and technique rather than a valid breakthrough.

It's The Little Things That Count!

Tool Kits

Gerald F. Foye
San Diego Chapter

Trying to locate all those parts and special tools required to get a specific job done sometimes takes longer than actually performing the task. And that, we know, represents lost money. That's where the tool kit comes in.

As an example, servicing brass flanges requires a variety of repair clips, flanges, butt plates, screws and, in some cases, specially-made tools. I find it convenient to keep everything in a small box.

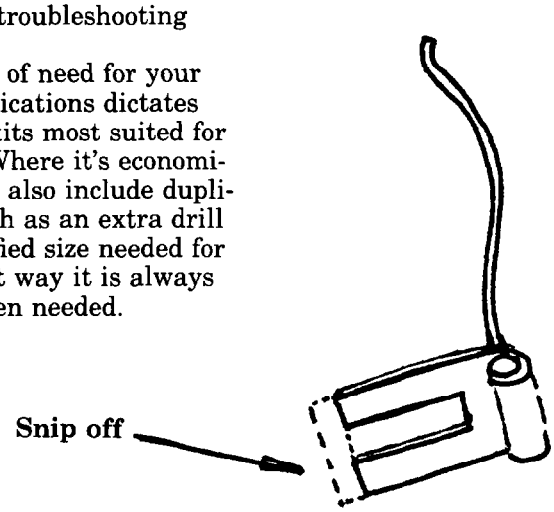
There is a similar kit with a collection of ivories sorted by grain and color, along with glue wafers and related clamps.

The most important kit contains a wide selection of commonly used hammer, damper, jack and "repair" springs. The latter are designed for a quick repair without removing the action. Also, a roll of #5 (0.14 dia.) and #8 (.020 dia.) brass (zither) wire for the purpose of making odd size springs. This can be done with spring winding tools available through parts catalogs although I find a simple block of wood with a couple of pins mounted in it very suitable for the task.

Regarding use of the hammer repair springs, I find it far easier to snip off the end of the mounting plate which allows the mounting screw to be started, then slip the spring clip under it and tighten. This was referenced in a previous *Journal*. (See sketch.)

Another kit includes tools for measuring string and damper heights in grands for action work. Still another kit contains player piano troubleshooting supplies.

Frequency of need for your specified applications dictates the types of kits most suited for your needs. Where it's economical to do so, I also include duplicate tools such as an extra drill bit of a specified size needed for that kit. That way it is always available when needed.



Hammer Rail Repair Spring

THE COMPUTERIZED TECHNICIAN

Choosing A Computer

Newton J. Hunt
Dallas Chapter

I have owned a computer for four years. While this does not by any means make me an expert, I do have some ideas I would like to share with you. They may be helpful if you have an interest in owning a machine.

Many people have been thinking of buying a computer but have been confused by the number of machines and by the claims of the makers and sellers. There are as many claims by salespeople for computers as there are for pianos, so you can now appreciate how some customers feel in trying to sort out fact from fancy.

This is what it's all about — computers, fact from fancy. The first two points:

a. A computer is just a tool. A somewhat complex tool, but nonetheless, just a tool.

b. Anything I can do with a computer, you can do with pencil and paper.

If you think that a computer will take the chore out of paperwork, then you are barking up the wrong lazy tree. It just ain't so. A computer will make the chore more interesting, perhaps save a little time, make income reports much faster, more accurate and more believable. For some reason people, including accountants, think that computers cannot err. It is true. They cannot, but the people who set up and type in the information can and do make mistakes. Therein lies the error.

If you think that a computer will take the chore out of paperwork, then you are barking up the wrong lazy tree. It just ain't so. A computer will make the chore more interesting, perhaps save a little time...

Today computers come in several basic styles:

1. Handheld, about the size of a checkbook.
2. Lap, about the size of a medium hardbound book.
3. Transportable, which will just fit under an airline seat
4. Attache, small size, but big ability and price tag.
5. Desktop, the type most often seen.

There are two other classes of computers: the mini, which costs tens of thousands of dollars, and

the mainframes, which can cost in the millions of bucks. These will be left out of our considerations here.

Computers are designed for a range of uses, ranging from exclusively games to exclusively business. The game types are best left to the kids and the TV, and the other extreme is not fun at all.

Before buying, you must define (divine?) your purpose, if you can, and then ask many people several basic questions.

1. Who will still be making computers five years from now?
2. Who will and can service the equipment if it needs it?
3. How many programs are available for the machine you are considering?
4. What types of programs are available?
5. How many third-party suppliers support it?
6. How large is the local user base?
7. How expandable is it?

All these questions should have a profound effect upon your choice, because what you buy, you will have to live with for some time to justify the expense.

My first suggestion is to go to several computer stores and start making a nuisance of yourself. Play with the equipment, ask questions, read books, read program jackets, listen in to others' conversations and try to make heads and tails of the lingo. It is as arcane and specific as piano nomenclature.

My second and best order of the day is when at the computer store ask where and when the computer user groups meet and who to contact. If you find an unfriendly and uninformative store, go to the next. Eventually you will find the information you seek.

The user groups are made up of people who have or want to have computers of a certain type or make, like Apple, IBM, TRS-80, etc. They are friendly, informed, sharing, instructive and love to answer questions and tout their computer — after all, they paid good money for it. The user groups will be your best source of information.

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. . . go to several computer stores and start making a nuisance of yourself. Play with the equipment . . . and try to make heads and tails of the lingo. It is as arcane and specific as piano nomenclature.

"

If you do that, you can skip the rest of this article.

It used to be in the not-too-distant past that one had to be a computer whiz to get any use out of one. Not so anymore. Now one can just turn on the computer and begin to make almost immediate use of it. There is what is called a "learning curve," just like learning to tune a piano. At first little is known or understood, but as time passes and new information is assimilated, it begins to make sense and becomes easier. So it is with computers, but the learning curve is becoming shorter and shorter with each passing generation of computer.

"

It used to be in the not-too-distant past that one had to be a computer whiz to get any use out of one. Not so anymore. Now one can just turn on the computer and begin to make almost immediate use of it.

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Many of the new programs are "user friendly" which is to say easier to get along with and faster to learn with a shorter learning curve.

Those who are sitting around waiting for the next neat machine or bell and whistle before buying will be waiting a long time. Computers change almost like you change your socks. The only thing to do is make a choice — jump in and do it — because there is no way to keep up with the changes unless you have unlimited funds and unlimited time.

Types of Computers

1. *Hand-held computers* are quite small, about the size of a flat checkbook. They are generally about $200 or so and are the best thing going for field engineering problem solving. Pilots like them because they can be programmed to solve a range of flying, navigation, fuel, great circle and similar problems without charts, circular slide rules and other paraphernalia.

The display is one line of about 20 characters. The keyboard is of necessity a bit crowded and memory is severely limited. They are great problem-solvers but not much for storing information because of limited memory in the computer and limited storage flexibility.

Casio makes a unit that will accept specially programmed modules which can be programmed for any specialty field like insurance, flying, scaling, engineering or electronics.

2. The *lap computer* is really neat because you can take it anywhere — car, boat, airplane, a customer's house or a classroom for note-taking. Its great advantage is portability, an eight- to 10-line by 40-character (or column) liquid crystal display (LCD). They usually have four to 12 times as much memory as the hand-helds and often include telephone connection interfaces. Some have rapid storage and retrieval using mini-cassettes, miniature printers, special program modules, printer connections and some other exotic abilities.

The LCDs are often difficult to read except in ideal lighting conditions, and their memory is limited to the equivalent of the text of this article, which is now up to some

6,500 characters. With a cassette or disc drive, their storage is unlimited.

There are a limited number of programs available for these computers and some of them you will have to key in yourself. The available programs are limited in size and therefore capability.

3. The *transportables* are larger than the above category and are also full-capability computers. They weigh in at 28 to 33 pounds (not exactly portable), but they can be carried on airplanes or in the car. Some have printers, some do not. All have CRT displays. The Texas Instrument portable has color. Most have a full array of connection ports for printers, larger monitors and modems. Software sometimes is included in the price, as with the Panasonic, which comes with PFS software. The small screen makes viewing difficult for some and the cramped insides make service a little difficult.

In considering any computer, you might like to ask independent service technicians which machines have given them the least service problems.

4. The *attache* type of computer is the newest and most expensive style. Most of them are IBM-compatible, which means they will run software for the IBM Personal Computer (or "PC") without modification, except the Hewlett-Packard. These are small, compact, light and neat but they can do everything most computers can, and they can be picked up and carried home, on a trip or to the work site.

I know of only six of these machines at this time. Some are battery-powered, some are not. Some have LCD displays, some have new plasma screens. Some have printers, some do not. Some do graphics, some do not. All the displays are a bit on the small side.

5. Finally, the biggest machines are the *desktops*. Most of these are made up of a keyboard, a processor unit with the power supply, disk drives and accessory slots and finally the monitor or CRT in monochrome (green, amber or white) or color.

These were the first type and still the largest sellers. Most new technology comes out in the desktop format and most of the accessories are made for this style. It does take up room, requires more power and generates more heat, but it provides better viewing and more flexibility, is more easily serviced and is more readily available.

Most accessories like disk drives, hard drives, modems, printers, monitors, memory cards, multifunction cards, software, desks, chairs, and everything else is made with the desktop in mind.

The Questions

1. "Who is going to be around in five years?" Five years is about the average expected life of a computer before newer designs make another more desirable. When something goes wrong, like a power supply or CRT, if the supplier and manufacturer is out of business, you may be out of luck for parts.

> "Those who are sitting around waiting for the next neat machine or bell and whistle before buying will be waiting a long time. Computers change almost like you change your socks."

The book *The Skeptical Consumers Guide to Used Computers* by Ed Kahn and Charles Seiter is quite instructive about computer buying, new or used. It lists dozens of computer makers who have gone out of business in just the last five years or so.

2. "Who can and will service what you buy?" If you cannot get it serviced and it goes out, you have a very expensive paper weight, so check out who services what, how much they charge and whether warranty service is available. The most common problems are poor solder joints, a flaky memory chip, faulty disk drives and bad power supplies, in that order.

3. "How many programs are available for this machine?" Programs are what a computer uses to do its work. Programming today is super-sophisticated, probably not something you will want to do yourself. The wider the range of available programs, the more selective you can be in choosing *the* program that best suits your needs.

4. "What types of programs are available?" The programs available for the less expensive computers are simpler and less flexible than the programs available for the more expensive equipment. The IBM and the compatibles can have greater amounts of memory and can, therefore, use programs like Lotus "Symphony," Ashton-Tate's "Framework" and other memory-intensive programs like these that can do many different things with the same data. If you want to play games, then the expensive machines are a waste of money because the games are likely not there to be had. If you want to do serious work, then you will need to consider the more serious machines.

5. "How many third-party suppliers support which machine?" "Third-party" means anyone who makes anything that interfaces with, plugs into, attaches to or otherwise works with a computer. Examples are disk drives, hard disk drives, memory cards, modems, monitors, A to D D to A converters, BSR cards, serial or parallel cards, and so on. Much of that may be nonsense to you right now, but I think you get the point. The more third-party suppliers or manufacturers there are, the more survivable a machine is likely to be.

6. "How large is the local user base?" Not everything you need to know will be in the user manuals or in the program documentation. If there is a large user group to whom you can turn to get a problem, a question or a confusion resolved, the more valuable your investment becomes, because the more use you will be able to make of it. Check around and go to as many meetings of as many user groups as you can find. Ask questions, look, feel and go with the best.

7. "How expandable is it?" Suppose that six to 12 months after

your purchase, someone comes out with an inexpensive mass storage unit (a hard disk drive). With some equipment, expansion is a matter of opening it up and plugging a card into an open slot. Other equipment expansion may not be possible at all, or it may require extensive modifications. There is no way in the world to know what the next year will bring in the way of "must have" devices, and any manufacturer who does not provide for such growth is doing himself and you a major disservice.

Now you have some serious planning to do. The most important thing is not to just go out and buy a machine on impulse or on some fancy demo that does little in terms of what you want to do.

Games, writing, information, calculations, communications, management, planning, forecasting, drafting, learning, teaching and "fanny fatiguing" are some of the things that computers can do and do well — you decide.

Correction

In the November Journal's membership pages, several members' names and classifications were listed incorrectly.

Gayla Mott and Pamela M. Burlack-Marolla are new Student members of the Golden Gate Chapter. Golden Gate's Don Ryder was reclassified from Student to Apprentice.

Also reclassified from Student to Apprentice were Theresa A. Renner and Marsha F. Shander. In addition, Registered Technicians Anthony A. Carducci, Curt Lockman and Shelley R. Byrd were incorrectly listed under "new members" instead of "Reclassifications."

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(Required by 39 U.S.C. 3685)

Title of publication: The Piano Technicians Journal.
Publication number: 00319562.
Date of filing: 10/7/85.
No. of issues published annually: 12.
Annual subscription price: $85.
Complete mailing address of known office of publication: 9140 Ward Parkway, Kansas City, MO 64114-3327.
Complete mailing address of headquarters of general business offices of the publisher, editor and managing editor: Publisher: The Piano Technicians Guild, Inc., Barbara Parks, Executive Director, 9140 Ward Parkway, Kansas City, MO 64114-3327. Editor: Larry Goldsmith, Communications Director, 9140 Ward Parkway, Kansas City, MO 64114-3327. Managing Editor: Larry Goldsmith, Communications Director, 9140 Ward Parkway, Kansas City, MO 64114-3327.
Owner: The Piano Technicians Guild, Inc.
Known bondholders, mortgagees and other security holders owning or holding one percent or more of total amount of bonds, mortgages or other securities: none.
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B. Paid and/or requested circulation:
1. Sales through dealers and carriers, street vendors and counter sales: none. 2. Mail subscription (paid and/or requested): Average no. copies each issue during preceding 12 months: 3,862; Actual no. copies of single issue published nearest to filing date: 3,892.
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F. Copies not distributed.
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2. Return from news agents: none.
G. Total (sum of E, F1 and 2 should equal net press run shown in A) Average no. copies each issue during preceding 12 months: 4,200; Actual no. copies of single issue published nearest to filing date: 4,200.
I certify that the statements made by me above are correct and complete.

Larry Goldsmith

Index of Display Advertisers

Getting The Organizational Spirit!

M.B. Hawkins
Vice President

The statement that "every person owes part of their time and money to the industry/business in which they are engaged" is as true today as it ever was. Along with that goes this: "none has the moral right to withhold their support from an organization which is striving to improve conditions within their sphere." Without saying more, it becomes vividly clear as to why the Piano Technicians Guild continues to encourage membership

There are, believe it or not, still pockets around the USA where Guild membership is unheard of and it is believed that this situation is diminishing. Even in heavily populated areas there are people who work on pianos who are not members of our organization. Many of them make it a practice to attend seminars offered in their area. Many, after being introduced to what we are and what we are about, go on to become members. Some that hold off become the strongest members once they decide to join. Yes, that is the big word..."Decide."

As a member, you can be of real assistance in helping people decide to join us in membership. Make it a point to assume nothing relative to whether or not a person knows about the Guild or what the interest may be. Start the conversation and be yourself; the rest I believe will take care of itself. Invite them to attend functions and introduce them to the *Journal*. If it is at a function where you meet the non-member, be sure to reach out and encourage him. Also stretch yourself a bit and follow up on new acquaintances. You will find new friendships as well as growing yourself.

When you sponsor a new member you are recognized as follows:

Membership Points

Five points will be credited for bringing in a new registered tuner-technician, four for an apprentice, three for an allied tradesman and one for all other memberships.

President's Club

Those who achieve 15 points will receive the President's Club ribbon. At the next awards banquet, each will be presented the President's Club pin and the member with the most points will be announced and honored.

Restorer's Club

Those who bring in a former member will receive the Restorer's Club award ribbon in addition to the point credits.

Booster Club

Everyone who brings in a new member will receive the Booster Club ribbon in addition to the point credits.

Be sure your name and chapter is shown in print on the candidates' application. Credit cannot be applied if the sponsor's name cannot be read.

Let's all decide now to make 1986 a *banner year* for membership!

New Members

Registered Technician

Chicago Chapter
MacKinney, Michael P
4500 Capstan Dr.
Hoffman Estates, IL 60195

South Bay Chapter
Jamieson, Michael S.
11917 Pennsylvania Ave.
Hollydale, CA 90280

Apprentice

Chicago Chapter
Blackburn, John L.
2432 S. 9th Ave.
Broadview, IL 60153

Montreal Chapter
Perrin, Gaetan
150, Rue Brousseau
Cap de la Madeleine,
Que., Canada G8T 8M3

N. Central Louisiana Chapter
Jackson, Melvin, Sr.
306 Bluebird Drive
Natchez, MS 39120

Portland Chapter
Serviss, Eva M.
3828 S.E. 13th Ave.
Portland, OR 97202

Allied Tradesman

Maine Chapter
Stewart, David A.
10 Second St.
Hallowell, ME 04347

Student

Dallas Chapter
Stump, Katherine J.
4601 Roberts GCC, Apt. 112
Denison, TX 75020

Maine Chapter
Fox, David W.
RFD #1, Box 79A
Island Falls, ME 04747

Oklahoma Chapter
Black, Gene W.
1619 Cambridge
Norman, OK 73069

Minnesota North Iowa Chapter
Brown, Georgia M.
702 Sycamore St.
Riverfalls, WI 54022

Philadelphia Chapter
Detweiler, Kathryn F.
143 Channing Ave.
Malvern, PA 19355

Zoshak, Mary E.
7 Barbara Drive
Malvern, PA 19355

St. Louis Chapter
Schaefer, Delores L.
PO Box 506
Greenville, IL 62246

Reclassifications

Registered Technician

Sacramento Valley Chapter
Hardy, William G.
852 4th Avenue
Rio Oso, CA 95674
(From Apprentice)

Western Massachusetts Chapter
Stebbins, John E.
46 Eames Ave.
Amherst, MA 01002

The Auxiliary Exchange

President's Message

It is Christmas shopping time again!

This is a good month to discuss "What's in it for me?" Why should I join the Auxiliary when I have no intentions of attending the National Conventions? What is my hard-earned money going for? The money which remains after the convention expenses helps the Piano Technicians Guild and, earlier, when they really needed it, the Auxiliary gave the PTG quite a chunk of money which they had earned by making and selling many different small items. Now we are beginning to talk about scholarships. My suggestion is that we give the scholarship money which we plan to earn to the Music Teachers National Association or the National Federation of Music Clubs to be used in the best way possible. Are you aware that the PTG is an associate member of both of these organizations? This kind of gift would put the PTG in a place of prominence with these prestigious organizations.

Christmas is giving time! Let's put "What's in it for me?" aside and join the PTGA to help others who need it, if you think you can get no direct use from your dues!

This reminds me — we, the Auxiliary, will be having "Christmas in July" at the Las Vegas convention. We will be raffling off an *electric train* under our *Christmas Tree!* Come see our gifts and ornaments and then buy them for a good cause — *scholarships!*

Thanks to all my friends in the Guild and the Auxiliary who sent cards and flowers during my recent illness. They were appreciated.

Merry Christmas!
Louise Strong

Christmas Around The World

Christmas is the happiest and busiest time of the year for millions of Christians all over the world. Christmas is the day on which Christians celebrate the birthday of Jesus Christ. No one knows exactly when Jesus was born, but most celebrate on Dec. 25. The word Christmas comes from the early English phrase *Christes Masse,* which means *Christ's Mass.*

In the United States and Canada, cities, towns and villages sparkle with bright lights and gay decorations. Shoppers fill the streets. Bright store windows hold shining displays of toys and gifts. Many prepare early in the year, shopping and making gifts for their loved ones. Many churches and homes set up a *creche,* or scene of the Christ Child in His crib surrounded by Mary, Joseph, the wise men and shepherds. People in some areas still follow the customs that early settlers brought from Europe. In parts of Pennsylvania, Moravian families set up a *putz* (meaning ornament) and make cookies in the shape of sheep, camels and angels and add them to the *putz.* French customs are popular in Louisiana and Quebec. French Canadians, believing that it is unlucky if a cat meows in the house on Christmas Eve, feed their cats especially well on Dec. 24.

In great Britain, children hang their stockings by the fireplace hoping Father Christmas will fill them with gifts. The British call the day after Christmas *Boxing Day.* In the late 1400s, King Henry VII introduced the *wassail bowl* to England from Scandinavia, which contains hot ale, spices and toasted apples. The word *wassail* comes from the Old English words "be thou well."

In France, children put their shoes on the doorstep on Christmas Eve so *Le petit Noel* (the Christ Child) can fill them. They use mistletoe as a symbol of good luck. Families bring in the yule log which must be big enough to burn from Christmas to New Year's Day.

In Germany, some people have trees in their homes for each family member. *Lubecker marzipan* is a favorite candy (almond candy shaped and colored to look like fruits, meat or toys). Families make their own gifts. Women and girls embroider and men and boys carve figures of men and animals from wood.

In Switzerland, young people visit nine fountains on their way to midnight church services on Christmas Eve. They take three sips of water from each fountain. Legend says that if they do this they will find their future wife or husband at the church door. They also believe that animals can speak on Christmas Eve.

In Italy, the people fast (go with little or no food) on the day before Christmas. At day's end they hold a ceremony around the *Prespio* (a miniature scene of Bethlehem). They pray while the mother places the *Bambino* figure (Jesus) in the manger. They reserve Christmas Day for religious ceremonies. Legend says that *La Befana* (an aged fairy queen), comes down the chimney with gifts on Jan. 6. The children listen eagerly for the bell she is supposed to ring.

In Sweden, celebration begins on St. Lucia's Day, December 13. Swedish children believe that elves called *Juul Nisse* help them with their tasks. They thank the elves by leaving food for them.

In Norway, the season starts on St. Thomas' Day, Dec. 21. They bake cakes especially for St. Thomas. Another custom is *ringe in Julen* (ringing in Christmas). Church bells throughout the country are rung at four o'clock in the afternoon on Christmas Eve. The bells are a symbol of welcome. Their Christmas pudding contains an almond and the one who gets the almond is the next to be married.

In Poland, the people fast the whole day before Christmas then feast at nightfall. A vacant chair for the Holy Child always stands at the festive table which is strewn with straw as a reminder of the stable where Christ was born. They bake small wafers called *oplatki,* stamp them with figures of the Nativity and then have them blessed. The poles exchange oplatki as we exchange cards.

In Yugoslavia, children celebrate the second Sunday before Christmas as Mother's Day. While their mother sits quietly, they steal in and tie her feet to her chair. They shout "Mother's Day, Mother's Day, what will you pay to get away?" She gives them gifts. On the next Sunday, father receives the same treatment with the same happy results. The Serbs believe they will have bad luck if the *badnyak* (Christmas log) burns out. Someone stands watch all night. A silver coin is baked in their Christmas cake and the person who finds the coin has good luck.

In Finland, villagers cut pine boughs and pile them in a long, green carpet for the Christ Child from the top of a hill to the center of the village. Finns eat a special St. Stephen's porridge on Christmas Day. People of all Scandinavian countries give food to birds at Christmas, because all seeds, nuts and insects are covered with snow. They leave extra grain for the birds in their yards on Christmas Eve.

In Asia, Christians in China and Japan observe Christmas customs that are similar to those in the United States. The Chinese call their Santa Claus *Sheng Tan Lao Ren* which means *Holy Birthday Old Man.* The Japanese have adopted the American symbol of Christmas and call him Santa Claus.

In Iran, the land the wise men came from, the people call Christmas *The Little Feast.* For the first 24 days of December Christians eat no meat, milk or eggs. Syrians believe the trees bow their heads on the Eve of Epiphany in reverence to the Christ Child.

My wish for you, one and all,
Buon Natale, as they say in Italy;
Kung Hei Shing Taan, as they say in China;
Joyeux Noel, as they say in France;
Glaedelig Jul, as they say in Norway
Froehlecke Weihnachten, as they say in Germany
and *Merry Christmas,*
As they say in the US and Canada.
Bert Sierota

LA Chapter Officers Installed

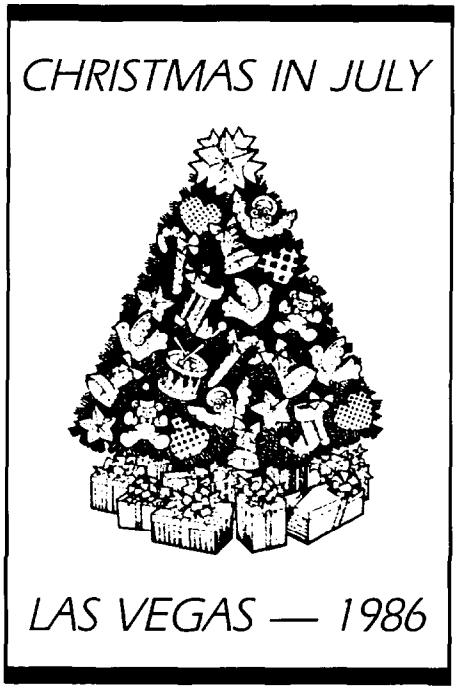
Norma Lamb installed the officers of the LA chapter on Sept. 7 at the home of **Fern** and **Don Morton.** She used piano parts for each officer in her installation. It was followed by a pot luck dinner and the singing of "Happy Birthday" to Norma, who celebrated her birthday that day. A belated "Happy Birthday," **Norma**, from all of us in PTGA!

Tidings and Tidbits

Another heartwarming letter, by way of **Fred** and **Dorothea Odenheimer**, from **Kazuko Makino**. She and her husband were our guests at the Kansas City convention. It was a most touching expression of her first visit to the United States and I urge you all to read it, along with viewing the pictures in the Historian Book that will be in Las Vegas.

There are still a few idea books left. Anyone who would like one can obtain it by sending $2.50 to **Norma Lamb**. They make fine inexpensive Christmas gifts.

Plans are being developed to do a repeat of our highly successful class on computers that played to a full house in Kansas City. Next year it will be a combined PTGA-PTG program and Institute Director **Ben McKlveen** has promised something designed for the piano technician and his or her business. It will be open to both the PTGers and PTGAers.



Christmas In December

Christmas is more than a day. It is a smile exchanged with a stranger...a child's wide-eyed wonderment...and more. Christmas is love. May the wonderful feeling that is Christmas be with you always.

Ginger Bryant, Editor

Coming Events

Date	Event	Site	Contact
Jan. 3-4 1986	Arizona State Seminar	University of Arizona, Tucson	Randy A. Prentice PO Box 13308 Tucson, AZ 85732 (602) 749-3788
Jan. 17-19, 1986	NAMM Winter Market	Anaheim, CA	Bob Russell 1414 Lander Rd. Mayfield Heights, OH 44124
Feb. 21-23 1986	California State Conference	Town & Country Hotel San Diego, CA	Don Mannino 4243 Blackton Dr. La Mesa, CA 92041 (619) 461-7559
Feb. 22, 1986	Washington D.C. Seminar	Ramada Inn Beltsville, MD	Joyce Meekins 20-E RidgeRd. Greenbelt, MD 20770 (361) 345-3555
Mar. 7-9 1986	South Central Louisiana Seminar	Regency Motor Hotel Shreveport, LA	Charles Richey 112 E. Robinson St. Shreveport, LA 71104
March 13-15, 1986	Pacific Northwest Conference	Red Lion Inn Bellevue, WA	Steve Brady 22808 35th Ave. West Brier, WA 98036 (206) 543-0543 (206) 771-7781
July 21-25 1986	Piano Techicians Guild Annual Convention and Institute	Caesars Palace Las Vegas, NV	Home Office 9140 Ward Parkway Kansas City, MO 64114 (816)444-3500

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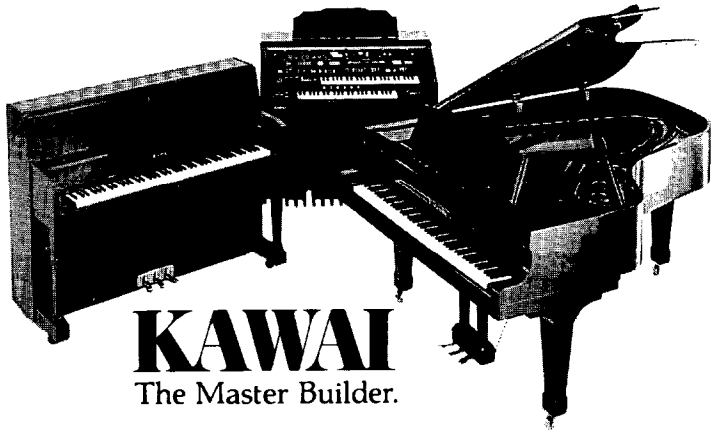

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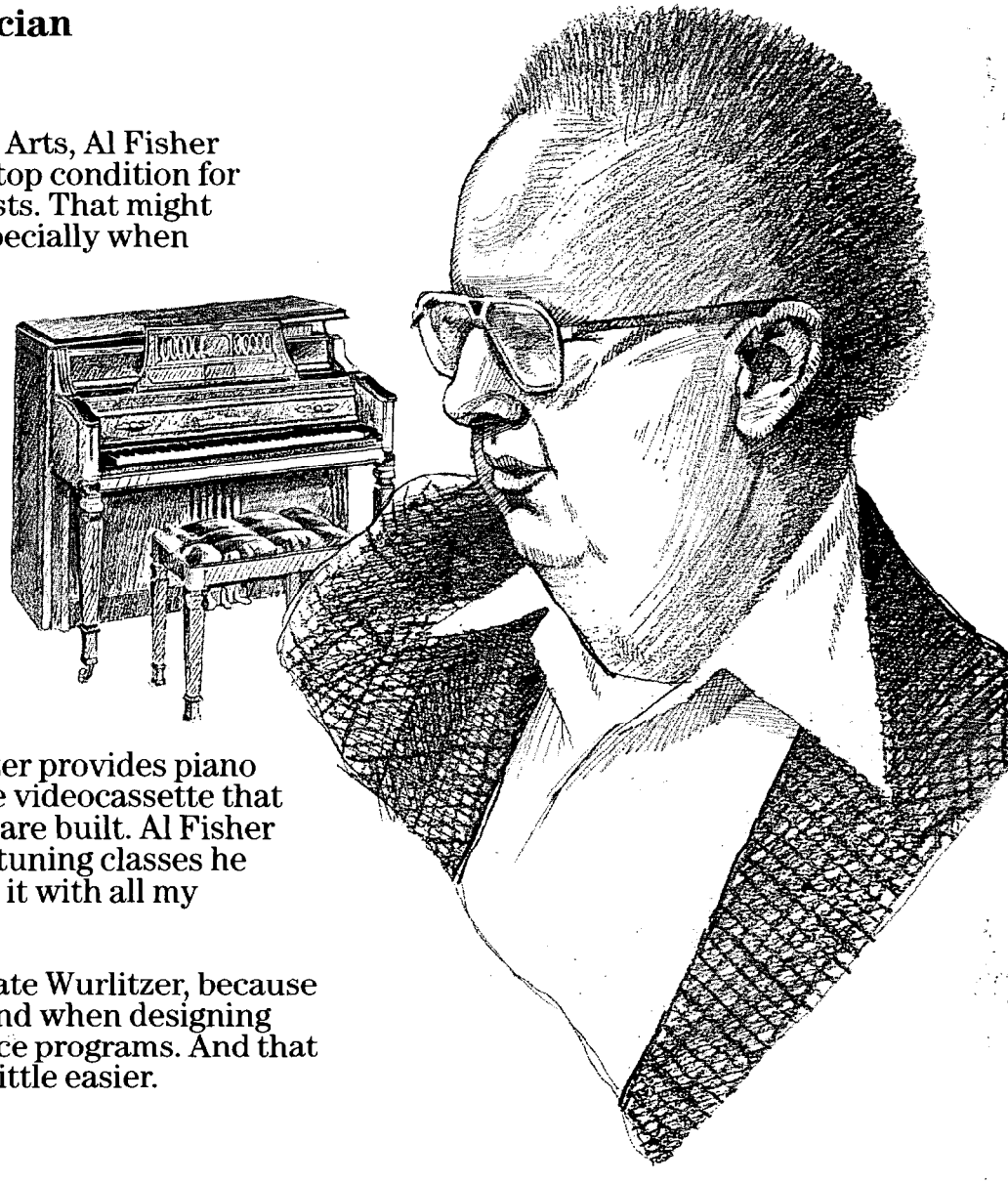

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